PART - II

Energy conservation in sugar factories
Chapter - I
Introduction

Background

The Indian industry is a blend of variety of plants of different vintage, varied technologies, capacities and efficiencies. The industry also had continuously undertaken improvement opportunities wherever possible and increased their productivity. Some of the plants that have incorporated all the energy conservation aspects have achieved higher efficiencies and are realizing huge benefits.

To replicate these efforts and achieve national level improvement there is a need to widely disseminate the information on the major energy conservation projects implemented by these efficient plants. Towards achieving the above objective.

Methodology

The following approach has been adopted for preparing this thesis

- Short listing of energy efficient units in that particular sector – based on discussion with experts
- Mailing of questionnaires to the short-listed units requesting for information on the implemented case studies along with the cost benefit analysis and photographs
- Visit to the plants for review of data, wherever required
- Compilation of the collected case studies for this thesis

The case studies have been projected with relevant technical details and financial analysis. However the name of the unit is not revealed, to protect the identity of plant.

Objective

The objective of this thesis is to widely disseminate the energy conservation projects implemented by various industries. This can enable plants to take up projects, which are proven and implemented successfully elsewhere.

The industries however have to fine-tune these case studies to suit their plant conditions and implement.

Contents

This thesis comprises of 16 case studies, which have been implemented in various units, under chapter – 3. Each case study contain:

- Brief background of the system and equipment where the project is implemented.
- Energy saving project implemented
- Implementation methodology, time frame and problems faced during implementation
• Benefits achieved
• Financial cost-benefit analysis

A brief description of the sector, the manufacturing technologies prevalent in our country, the target energy consumption and the focus areas for energy conservation in the sector are also included in this thesis under chapter - 2.